(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 6 May 2004 (06.05.2004)

PCT

(10) International Publication Number WO 2004/038409 A2

F-38130 Echirolles (FR). REVOL-CAVALIER, Frédéric [FR/FR]; 11 rue de la Saulne, F-38180 Seyssins (FR). CHATELAIN, François [FR/FR]; 413 rue Hector

Berlioz, Le Chevallon de Voreppe, F-38340 Voreppe (FR).

SAUTER, Fabien [FR/FR]; 22 rue Sisteron, F-38170

(51) International Patent Classification⁷: G01N 33/487

(21) International Application Number:

PCT/EP2003/015044

(22) International Filing Date: 28 August 2003 (28.08.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(81) Designated States (national): CN, JP, US.

Seyssinet-Pariset (FR).

(30) Priority Data:

02/10663

28 August 2002 (28.08.2002) FR

(84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

(74) Agent: BRYKMAN, Georges; c/o BREVATOME, 3, rue

du Docteur Lancereaux, F-75008 Paris (FR).

(71) Applicant (for all designated States except US): COM-MISSARIAT A L'ENERGIE ATOMIQUE [FR/FR]; 31/33, rue de la Fédération, F-75752 Paris 15ème (FR).

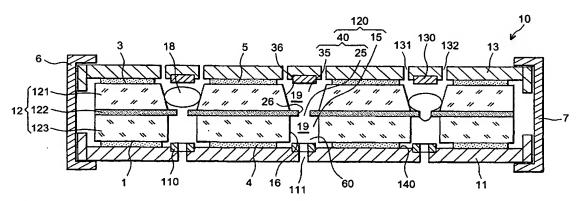
Published:

 without international search report and to be republished upon receipt of that report

(72) Inventors; and

(75) Inventors/Applicants (for US only): PICOLLET-DA-HAN, Nathalie [FR/FR]; Le Crozat, F-38580 La Ferrière (FR). CAILLAT, Patrice [FR/FR]; 10 rue de Provence, For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DEVICE FOR MEASURING THE ELECTRICAL ACTIVITY OF BIOLOGICAL ELEMENTS AND ITS APPLICATIONS



(57) Abstract: The invention relates to a device for measuring the electrical activity of biological elements, comprising a substrate (12) which has lower and upper faces and at least one through opening (120), said opening being delimited by a set of walls, and characterized in that: it comprises two plates (11, 13) placed on either side of the lower and upper faces of the substrate and delimiting with said set of walls a chamber (19); each of the plates is provided, on its face lying opposite the substrate, with at least one electrode (110, 130) facing the opening in the substrate; each of the plates further has at least one channel that starts inside said chamber and connects the latter to the outside of the device; and the chamber communicates with the outside of the device only through said channels.



004/038409 A2